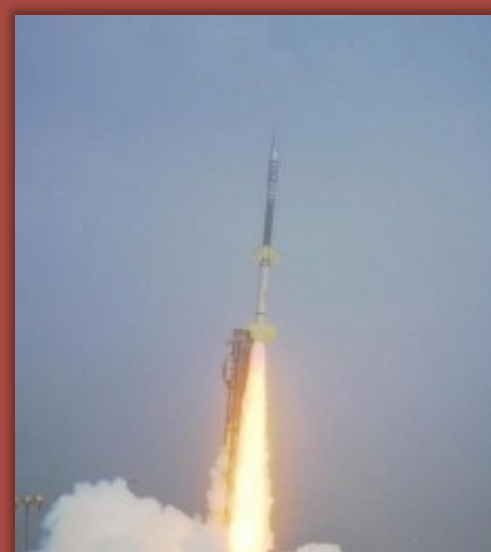




SOAREX - 6
Aug 22, 2008

- High-mach Reentry Test
- Shock shock interaction analysis



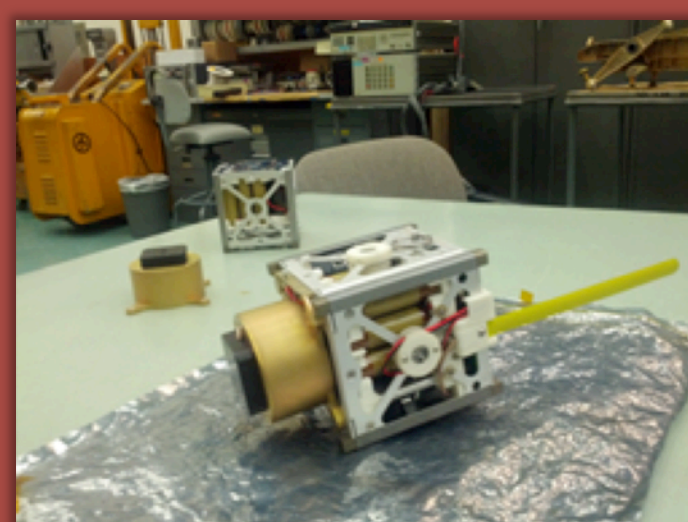
SOAREX - 7
May 28, 2009

- First flight of TDRV
- Highly stable self-stabilizing reentry probe



TES-1
Oct 4, 2012

- First US Cube-Sat deployed from the ISS
- System verification test



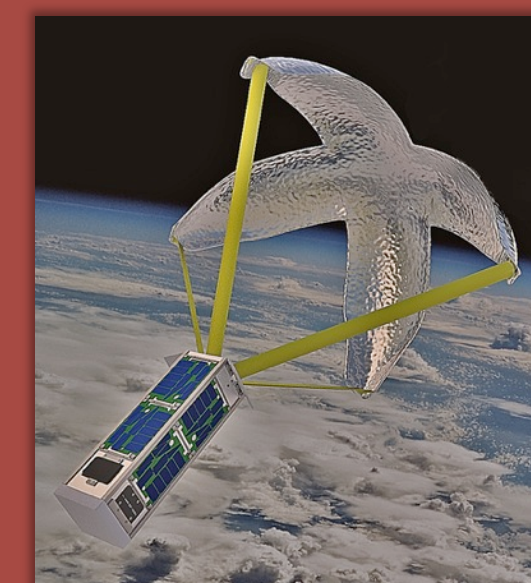
TES-2
Aug 21, 2013

- Expanded communication tests
- First successful Iridium modem test



TES-3
Nov 19, 2013

- First 3U deployed from the ISS
- First Exo-Brake flight test



TES-4
March 3, 2014

- Evolved Exo-Brake flight test
- Flight material and subsystem investigation



SOAREX-8
July 7, 2015

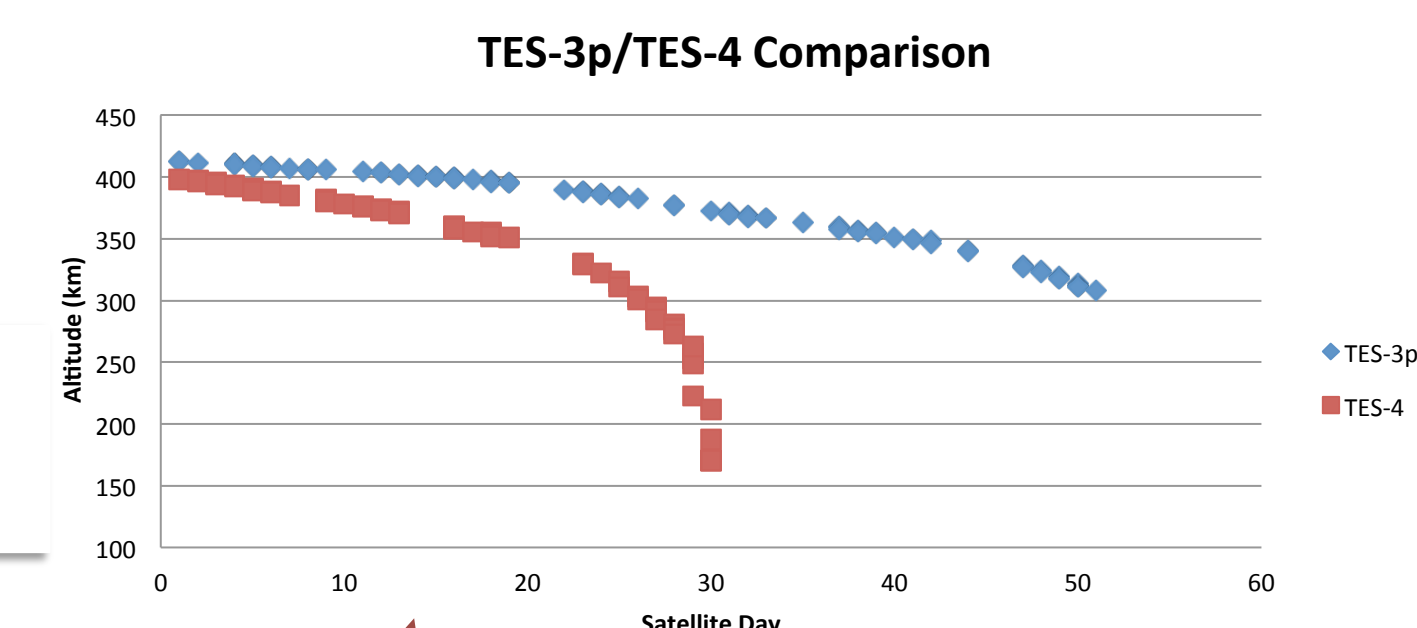
- Full scale Exo-Brake flight test
- Advanced communications suite



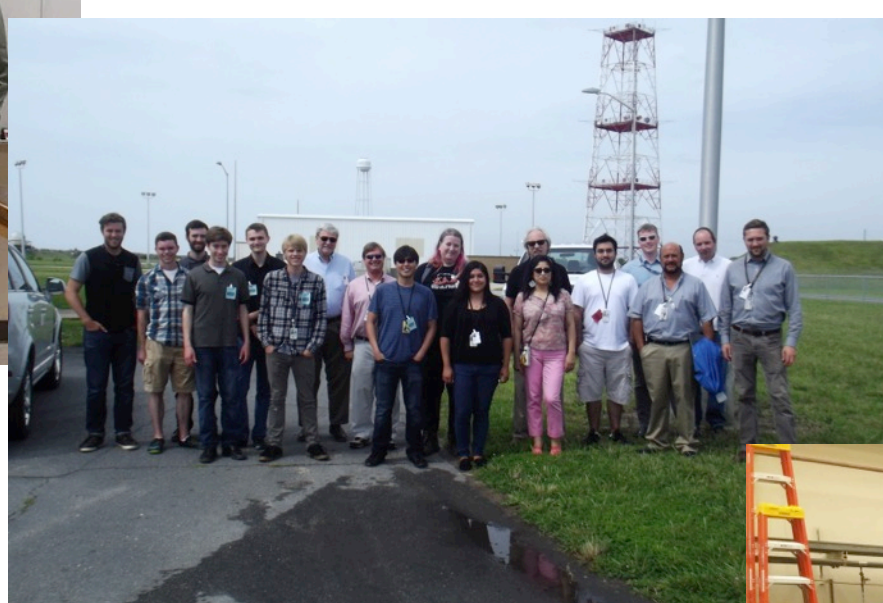
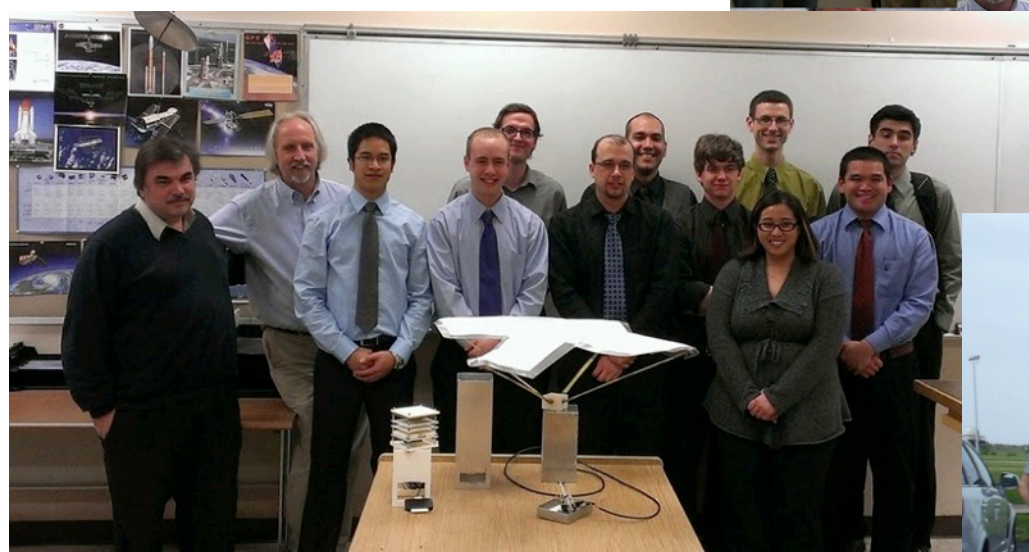
TES-5
Expected
Late 2015

- First modulated (steerable) Exo-Brake
- Advanced targeting

RAPID DE-ORBIT:



The Team



University Collaboration

- University of Idaho
- San Jose State University
- University of Riverside

Key Technology Advances

Exo-Brake

- Novel and 'Safe' deorbit technique

Advanced CubeSat Com

- Development of a 'TDRS-for-CubeSats'
- Obviating the need for ground stations
- Rapid command uplink capabilities
- X-Band, Advanced S-Band, Wireless Sensors through 802.15.4

ISS Design/Safety Process for Nanosatellites

- ISS compatible design and testing process for rapid flight opportunities

SCRAMP (Slotted Compression Ramp Probe) and the TDRV (Tube Deployed Reentry Vehicle)

- Self-stabilizing reentry probe
- Shock/Shock Interaction
- Transpiration studies

Applications

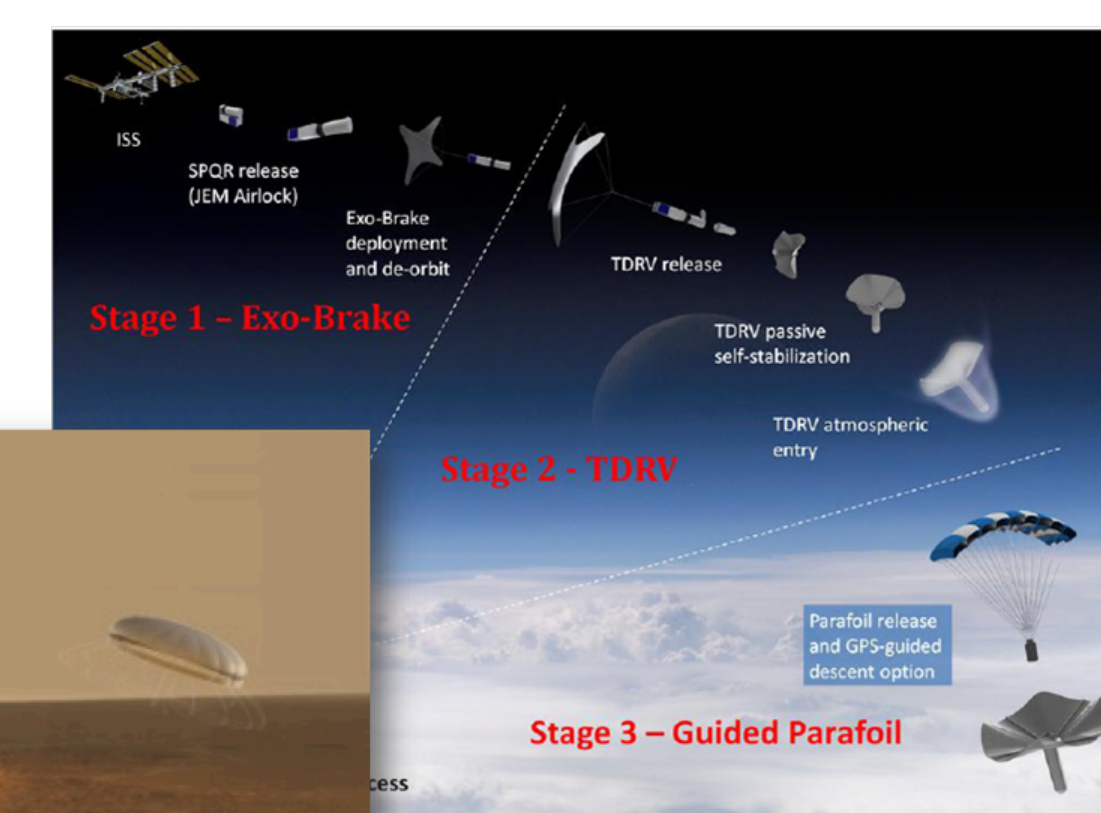
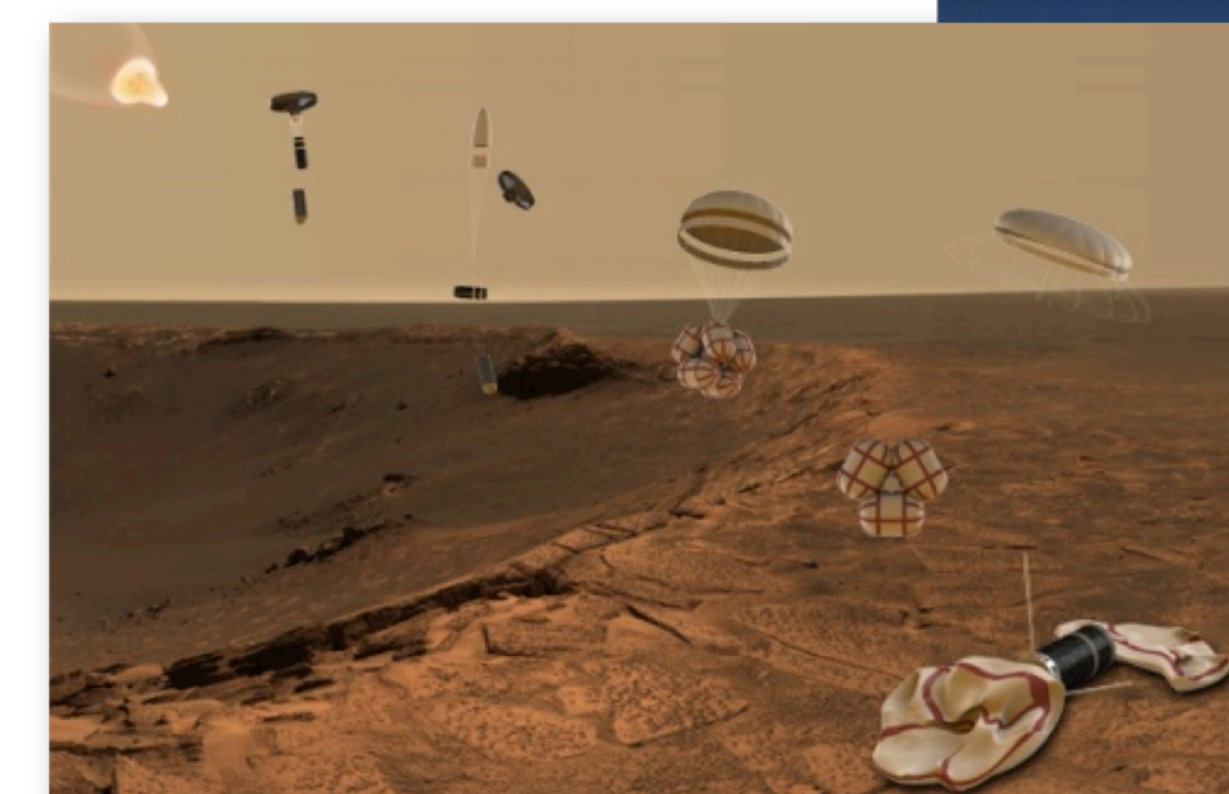
ISS/Orbital Platform Sample Recovery

- Recovering up to 3kg samples

ATROMOS Mars Surface

NanoSatellite Mission Concepts

- Exploring critical, high-risk regions of Mars



San José State
UNIVERSITY

